

**Nebraska Information Technology Commission
Community Technology Fund 2001
Application**

Section I: General Information (Required)

A. Project Title: Fiber Optic Learning Center
Name of Submitting Entity: Valley County Economic
Development Board
Project Contact Information:
Name: Bethanne Kunz
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B. Certification for Request

I certify that to the best of my knowledge the information in this application is correct and that the application has been authorized by this entity to meet the obligations set forth in this application.

Authorized signature: _____
Typed Name: Bethanne Kunz
Title: Valley County Economic Development Director
Name of Entity: Valley County Economic Development Board
Date: February 16, 2001
Total State Funds Requested: \$ 46,000

Section II: Executive Summary (Required)

The fiber optic learning center can be described as a fiber-optic based, full-motion, interactive video connection to virtually anywhere in the world with a dial-up connection. Classes could be taken through colleges and universities. The classes that could be taken range from high school courses to graduate level classes. Area businesses could have the opportunity for employees to attend seminars that are currently available only with limited usage hours. Valley County Hospital could provide continuing education and a method of completing the Registered Nursing program through BryanLGH Medical Center for Licensed Practical Nurses. Overall, this project will provide benefit to many sectors of the different communities by allowing continued education and workshop opportunities for residents in Valley County and beyond.

Section III: Goals and Objectives (Required)

1. Describe the project, including the specific goals and objectives.

The overall goal of this fiber optic learning center project is to provide a location in the Loup Valley area of Nebraska for continued educational opportunities for area residents.

The specific goals and objectives of this project are:

- To enhance the educational opportunities for residents in Valley County and the surrounding area.
- To create opportunities for businesses to send their employees to workshops and seminars in Ord. This will allow businesses to reduce travel expenses and increase participation in classes.
- To retain our current workforce by providing them with needed educational opportunities. It is difficult to recruit professionals to this area of the state and this learning center will allow the professionals that are already here to expand their knowledge base.
- To create the opportunity for CNA's and LPN's of Valley County Hospital and nearby hospitals to further their education and earn their LPN or RN License.
- To increase the technological capabilities in this area of rural Nebraska to attract and retain residents.
- To strengthen the workforce skill and education levels in the area.
- To develop a partnership between Valley County and nearby counties by building a sense of community and pride in educational opportunities.

The implementation of the Fiber Optic Learning Center will accomplish the above-mentioned goals.

2. Describe the project's relationship to the entity's comprehensive technology plan.

The Economic Development Board of Valley County is currently working on a comprehensive technology plan. In order to determine technology needs in Ord and Valley County a Technology Infrastructure Needs Assessment is being completed. From this assessment, it became obvious that there was a definite need for more educational opportunities in this area of the state. People need these opportunities so they can further their education without having to move or travel to a larger city. An interactive learning center will provide the needed educational opportunities at many levels. Students will be able to earn an associate, bachelors or masters degree through this system. Also, business employees could attend seminars and workshops here in Ord.

3. Describe the project's objectives and how they support the goals of the NITC and/or the priorities of the Community Council.

The Fiber Optic Learning Center project meets the following NITC goals and Community Council priorities:

Support the development of a unified statewide telecommunications infrastructure that is scalable, reliable and efficient so as to:

- **Broaden educational opportunities to include expanded access to lifelong educational and training opportunities so that Nebraska's citizens and workforce can prosper in the emerging information society;**

The fiber optic learning center will provide numerous educational opportunities to people that currently have no means of furthering their education. Classes could be taken through numerous post-secondary institutions. The classes that could be taken range from high school to graduate level courses. Area businesses will have the opportunity for employees to attend seminars that are currently only available with limited usage hours or by driving a distance of seventy miles or more. Such opportunities include workshops and seminars provided by Nebraska Public Power District, Department of Economic Development, Nebraska Bankers Association, American Bankers Association, Nebraska State Bar Association, American Bar Association and private

organizations. Valley County Hospital could provide continuing education and a method for nurses to complete the Registered Nursing program through BryanLGH Medical Center for Licensed Practical Nurses (LPN). Certified Nursing Assistants could also earn their LPN License. In today's information-based society, courses are being offered all over the world for the convenience of the students. This center will provide such a convenience for residents in this area.

- **Enhance services to Nebraska communities and citizens;**

Providing a localized center for central Nebraska's citizens to attend classes, workshops, continuing education and seminars will expand the knowledge base of our residents. In this area of the state there are many people that don't have the time or income to travel out of town to take classes. Many of these people are single parents with small children and cannot take off work to attend educational opportunities that they are interested in. In addition, majorities of people who live in this area are farmers and/or work in Ag-related business. Many of these people have second jobs due to the slow agricultural economy. Many of these people don't have the necessary skills and education to obtain professional jobs. The fiber optic learning center will provide enhanced services that didn't exist or weren't feasible before.

Coordinate the state's investment in telecommunications infrastructure so as to:

- **Develop new ways to aggregate demand, reduce costs, and create support networks**

Currently, businesses and residents have to travel outside of the area to further their education. This travel creates the expenses of mileage and extra time away from work. The fiber optic learning center will reduce costs to employers by eliminating mileage expense. In addition, employers will get the extra benefit of more productivity because employees will spend more time in the office. Support networks will be formed between communities in the Loup Valley area. An example of this will be the LPN to RN program offered through BryanLGH Medical Center. In the year 2000, LPN's from Albion, Broken Bow, Burwell, Fullerton, Greeley and Sargent showed interest in traveling to Ord to earn their RN License if the opportunity to do so were made available. A strong support network will be created in Ord by involving local businesses, Valley County

Hospital, Chamber of Commerce, Greater Loup Valley Activities and area residents.

- **Encourage collaboration between communities of interest;**

Collaboration between all communities in Valley County as well as many communities in neighboring counties will be increased with a fiber optic learning center. This project will dramatically increase the educational opportunities for area residents. There will be collaboration between public and private entities, as individual businesses will work together with public entities such as the Chamber, Economic Development Board, Valley County Hospital and Greater Loup Valley Activities.

- **Encourage competition among technology and service providers;**

The fiber optic learning center should encourage with the local phone company, cable company and other telecommunications companies in an indirect manner. Once the fiber optic learning center is installed these companies will realize the need that local businesses and residents have for technology-based applications. There are two separate fiber optic systems in Ord. One is owned by Cable USA and the other is owned by Citizens Communications. However, the service provided by these is limited because they have chosen not to work in cooperation with each other.

Determine a broad strategy and objectives for developing and sustaining information technology development in Nebraska, including long-range funding strategies so as to:

- **Stimulate and support information-based economic development;**

Availability of the fiber optic learning center will increase access to educational opportunities, which will in return, increase the value and knowledge of our workforce. Workforce development is much needed in this part of the state and this learning center will provide a basis for this development.

- **Encourage the appropriate use of information technology in education, healthcare, and economic development, and every level of government service;**

The use of the information technology in the fiber optic learning center will provide professional education for healthcare, government employees and local employees of businesses. This learning center will also will serve as a business recruitment tool for economic development efforts because it could be used as a training resource. The Department of Economic Development recently completed a Business Retention and Expansion study in Valley County. The results of this survey indicate the definite need for employee and business training opportunities. This center will also provide access to courses from numerous colleges and universities to allow residents to further their education. With the installation of this center there will be many economic development opportunities available for those working in government and development occupations.

- **Encourage and enable long-term infrastructure innovation and improvement;**

This center will create long-term technology infrastructure that will allow educational opportunities for years to come. This infrastructure will be in place through one learning center that will serve many communities and counties. This learning center will be the first in our area of the state that will be accessible to the public during daytime hours. Many businesses, employees and residents will take advantage of this educational improvement.

Community Council Priorities:

Nebraska will cultivate an economic, political, and regulatory environment conducive to IT development by:

- **Ensuring access to public and private services for all citizens of the State of Nebraska (regardless of impediment - i.e., location and socio-economic status) through the appropriate and efficient use of information technology;**

Although this center is intended to serve primarily the Central and North Central part of the state, all Nebraskan's will be able to use the center if they so chose. Access to the fiber optic learning center will be made available to all persons from public and private entities. The learning center will provide information technology that will enable all citizens to benefit by enhancing and furthering their education.

- **Promoting the development of an infrastructure (including sufficient bandwidth) that is secure, affordable, reliable, and responsive to the specific needs of various sectors. Efforts should be made to ensure that systems across the state are compatible.**

The learning center will provide an infrastructure that is extremely affordable to members of the private and public sectors. This system will be reliable and responsive to the specific needs of various sectors of the community. Both public and private sectors will have access to the learning center. Classes, workshops, seminars and forums will be accessible to all citizens of the Loup Valley area.

- **Developing a workforce knowledgeable of and fluent in the use and applications of information technology. Efforts should be made to promote the recruitment and retention of IT professionals within the state.**

The development of the learning center in Ord will create an opportunity, which has previously been unfeasible or limited, for members of all sectors to increase their knowledge in the area of information technology. The Economic Development Board has focused much attention on IT infrastructure needs and the learning center is one need that will benefit many communities in this region of the state. Efforts are being made to recruit IT professionals and this learning center will provide evidence that information technology is extremely important and a priority in rural Nebraska.

- **Facilitating IT development and innovation by raising awareness, sharing information, encouraging collaboration, and developing partnerships among public and between public and private entities.**

The fiber optic learning center project has created substantial partnerships between public and private entities. Local businesses have collaborated with the Economic Development Board and the Valley County Hospital to share information and partner on this project and many projects in the future. In addition, numerous public entities have pulled together to support this project. All entities involved have increased local awareness of the need for educational opportunities to retain and attract residents to our area of the state.

Section IV: Scope and Objectives

Describe the project's specific scope and objectives. The narrative should address the following:

1. Beneficiaries of this project and the need(s) being addressed;

The beneficiaries of this project include, but are not limited to, the approximate 32,767 people who live and/or work within Valley County and the adjacent counties of Loup, Garfield, Wheeler, Greeley, Howard, Sherman and Custer. Portions of Boone, Holt, Nance, Merrick, Buffalo and Hall Counties are within the 50-mile radius of Valley County. Some of those people, especially those that live to the North will also benefit from this project. Potential beneficiaries of this project include those people that would rather drive to Ord for educational opportunities because it is closer than other communities that provide this opportunity. The population within a 50-mile radius of the City of Ord, Valley County, Nebraska includes residents of several counties geographically adjacent to Valley County, Nebraska. The population of Valley County, according to 1999 U.S. Bureau of the Census data, is 4,527. The 50-mile radius of Ord, however, includes the neighboring counties of Custer, Loup, Garfield, Wheeler, Greeley, Howard, and Sherman counties. In addition, portions of Boone, Nance, Merrick, Hall and Buffalo counties are also included.

For reference, the following table summarizes population data for the counties primarily within the 50 mile radius that are generally considered to be economic trading partners in Ord, Nebraska (hereinafter "selected counties"):

County Name	<u>Table A-1 Population¹</u>		
	Population Years		
	<u>1997</u>	<u>1998</u>	<u>1999</u>
Valley	4,746	4,632	4,527
Loup	673	672	654
Garfield	2,065	2,045	2,015
Wheeler	946	930	924
Greeley	2,898	2,861	2,812
Howard	6,445	6,498	6,540
Sherman	3,533	3,452	3,470
Custer	<u>12,111</u>	<u>11,957</u>	<u>11,825</u>

¹ Source: U.S. Bureau of the Census, Census of Population

TOTALS	33,417	33,047	32,767
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The selected counties identified above do not fully identify the population within a 50-mile radius of Ord, Nebraska. As previously indicated, portions of Boone, Holt, Nance, Merrick, Hall and Buffalo counties are also within that radius. Therefore, the map attached at **Exhibit A-1, Population²**; is included to demonstrate the population within the 50-mile radius of Ord, Nebraska. Upon the attached Exhibit A-1, the 50-mile radius of Ord, Nebraska is shown. Please note that the selected counties and population data shown in Table A-1 above are darkened on the attached map, Exhibit A-1, for viewer reference.

SEE: **Exhibit A-1, Population**

SEE ALSO: **Exhibit A-2, Commuting Radius**

2. Expected outcomes of the project;

The expected outcomes of this project include:

- Increased access to college level courses through various institutions ranging from Associations to Master's Degrees (deliverable)
- Increased information technology capability awareness in rural Nebraska
- A workforce that has more educational opportunities available to them (deliverable)
- A workforce that has increased value to area businesses
- Increased accessibility for distance learning through the Bryan School of Nursing, which will allow advanced training and licensure of CNA's and LPN's (deliverable)
- Filling the vacancies of RN's and LPN's at area hospitals
- Increased accessibility to community outreach programs such as 55Plus and the Center for Advancing Nursing Practice Excellence in Nursing Forums and educational programs on diabetes for patients and providers (deliverable)

² Id.

- The ability to video conference, which will allow local business employees to attend seminars and workshops in Ord (deliverable)
- Significant reduction in cost for travel and time away from work
- Coordination of educational activities among public and private entities
- A workforce with more knowledge and skill provided through the means of the learning center
- Attraction of people from neighboring towns and counties to Ord

3. Measurement and assessment methods that will verify project outcomes;

In addition to verifying the deliverables described above, the following tools will be used to assess outcomes:

The Valley County Hospital will develop an assessment tool that determines the number and outcome of the Bryan School of Nursing Program. In addition, the hospital will report on the filling of vacancies by those whom achieved their education at the learning center. They will also report on the quality and productivity of these workers.

The Economic Development Board, in cooperation with the Chamber of Commerce will assess the number of businesses that send their employees to the learning center for educational training.

The Economic Development Board will keep track of the number of students that participate in course work within in community and each county. This will help us determine how many people are coming to Ord from different areas of Central Nebraska and the impact it can have on our local economy.

Area businesses will be asked to measure the amount of money saved on eliminated travel expenses and extra time away from work.

An annual assessment of learning center participants will be conducted to determine if their needs are being met and what can be done to further facilitate the learning process of participants.

Area businesses will monitor the change in workforce skill and education levels.

There will be one centralized location for interactive learning in Ord and this will provide coordination among the various entities involved. A questionnaire will be distributed to these entities to determine the effectiveness of this learning center.

4. Significant constraints of the project (Constraints are factors that will limit the project management team's options.);

The Valley County Economic Development Board foresees few constraints, as we will be using a proven technology and software that has been tested in several other sites across the state. However, the following constraints are listed:

- Recruiting volunteer help for the day-to-day scheduling and operation of the learning center. However, we do not predict this to be a substantial problem because we have volunteers that are devoted to help in any way possible. There are several people that will be delighted to help with this project, as the opportunity to learn about technology and educational opportunities is important to many people in rural Nebraska.
- Finding the time to train the volunteers on how to use the equipment will be a constraint. However, BryanLGH staff is devoted to do an initial training session and the volunteers could attend this session.
- Funding of the annual fee of \$6,000 for line costs is a constraint. However, several of the entities involved in this project will be willing to pay a portion of the annual fee. Area businesses that use the center will also be willing pay usage fees.
- Availability of technical support beyond the initial training session will be limited. However, technical support will be available through a contract with Galaxy.

5. Significant assumptions relating to the project (Assumptions are factors that, for planning purposes, will be considered to be true.).

- Central Nebraskans will have more accessible and feasible educational opportunities.

- It will be advantageous for businesses to send employees to workshops in Ord rather than have them drive 70 miles or more.
- Ample number of volunteers will be recruited to schedule and run the equipment.
- The demand for classes, workshops and seminars at the learning center will be sufficient to justify the learning center.
- There will not be any staff turnover in the partnering organizations that will cause conflict with this project.
- On-going maintenance costs and annual fees will be less with one system than with several systems.
- The interactive fiber optic learning center will be used for many years to come because it is a highly technological project and will not become obsolete in the near future.

Section V: Project Justification (Business Case)

Justify the project either in terms of an economic return on investment of other benefits to the entity of the public. The narrative should address the following:

1. Cost/benefit analysis and a life cycle cost analysis;

This project is difficult to perform a cost-benefit analysis on. However, there are many intangible benefits that will be realized with the implementation of the learning center. First, there will many more educational opportunities for people in rural Central Nebraska. Second, there will be a positive attitude toward the development of these educational opportunities. In addition, area businesses will have numerous options in continued education workshops for their employees. The learning center will attract people to Ord, which will help the local economy because fewer people will be leaving town for education opportunities and less money will be spent out of town. Last, but not least, area residents will have the opportunity to further their education locally, which was limited or not feasible before. In turn, these people will develop more knowledge and skills, which will make our local workforce more attractive to existing and potential businesses.

2. Impact the project will have on the customers, clients, and citizens. What services or processes will be changed or implemented, with respect to customer service, productivity, quality, or performance.

The impact that this project will have on workforce quality and productivity is perhaps the greatest benefit of this project. Employees of local businesses are currently very limited in regard to educational opportunities and the establishment of the learning center in Ord will give them new and exciting opportunities to advance their education. Worker productivity, quality and performance will all be enhanced with the implementation of this project. The Agricultural-based economy in rural Nebraska has caused many farm families to seek employment off the farm. Many of these people don't have the necessary skills and knowledge that area businesses require. The learning center will provide the needed educational opportunities for many people resulting in an increased quality and number of our workforce.

3. Impact the new system will have on current problems and how it will impact the entity's policies, procedures, standards, staffing, costs, and funding;

Policies and Procedures will need to be developed concerning the scheduling process, technical problems (if they should arise), and measuring the outcomes of the project.

Standards: No standards impacts are foreseen.

Staffing: This project is not requesting money to fund a full time position for one year. The Economic Development Director and volunteers will be relied on to sustain this operation from year to year. Therefore, this project is very sustainable for many years to come.

Costs: The sponsoring organization, Valley County Economic Development Board, will be responsible for the annual fee of \$6,000, which will be shared with other participating entities.

Funding: Once the learning center is installed, Galaxy will provide routine maintenance. Funding will only need to occur to cover the annual \$6,000 fee and extended maintenance contracts with Galaxy.

4. Other solutions that were evaluated and why there were rejected. Include their strengths and weaknesses. Explain the implications of doing nothing and why this option is not acceptable;

Other solutions that were evaluated were using the Ord High School's learning center and doing nothing.

Ord High School has developed a fiber-optic interactive learning center through their Education Service Unit. Several visits

were made to the high school to view their learning center and to discuss the possible collaboration of educational use. However, they are currently using the system throughout the school week, especially during business hours. The requirements that are necessary to provide numerous educational opportunities for different entities include having the center available during normal business hours as well as evenings. The Bryan School of Nursing program will require students to utilize the center during the day. This will not be possible at the school because students and staff will be using the facility. There are many entities that will utilize the learning center during the day and this justifies the development of a stand-alone center for public and private use.

Doing nothing is simply not the correct answer to provide the workforce of rural Central Nebraska with needed educational opportunities. This would only be an option if workforce development were not an issue in our area of the state. It is becoming more and more difficult for people to find the time and money to travel for education. Many families are single parent and most dual-parent families have both parents working full-time. The depressed Ag economy has also added a sense of urgency to our workforce skill and knowledge development.

5. The project's compliance with any state or federal mandates. If yes, please specify the mandate being addressed.

Not applicable - We are not aware of any state or federal mandates which will affect this project.

Section VI: Implementation

Describe the implementation plan - from design through installation and ongoing support - for the project. The narrative should include the following:

1. Project sponsor(s) and stakeholder acceptance analysis;

The primary stakeholders in this project are the following:

- The Economic Development Board of Valley County. This group is enthusiastic about the positive effect a fiber optic learning center will have in this area of Central Nebraska. They realize the importance of developing our workforce to meet the needs of existing and potential businesses.

- Valley County Hospital as well as many other hospitals in this area. These hospitals are optimistic about the learning center. There is a shortage of RN's in this part of the state and the Bryan School of Nursing will provide education to LPN's to become RN's and CNA's to become LPN's. Recruitment of these professionals is difficult in rural Nebraska and this program, made possible through the fiber optic learning center, will have a tremendous impact on the quality of nursing care provided.
- Area businesses, including, but not limited to, banks, law offices, insurance agencies and financial planning offices. There have been many positive comments about the opportunities that will be available with the learning center. Businesses could send employees to workshops, seminars and continuing education sessions more easily than before. Expenses for travel and time away from work will be reduced.
- Residents of Valley County and the neighboring counties as shown in Exhibit A-1 and A-2 previously. There is a definite need for more educational opportunities in this part of rural Nebraska. If a learning center were located in Ord, many more people will have the opportunity to take classes and increase their marketability. These residents have shown a strong interest in this project and are excited about the opportunity to continue their education while still being able stay near home.
- Ord Chamber of Commerce. The members of the Chamber are enthusiastic about the learning center project because there is a need for several types of training in this area of the state. Some of the training needs include marketing, employee development and web site and Internet training.

2. Define the roles, responsibilities, and required experience of the project team;

Education Specialist: Mr. Bruce Thiel, BryanLGH Medical Center

Mr. Thiel is the coordinator for the equipment and set-up in this project. He will be in charge of ordering all equipment and the initial design and engineering of the network. Mr. Thiel will be responsible for network facilities and electronics, full system setup and testing as well as initial user training.

Hospital Administrator: Colleen Chapp, Valley County Hospital

Ms. Chapp will be responsible for the scheduling of classes through Bryan School of Nursing. She will also recruit students from area hospitals to participate in the nursing program.

Project Coordinator: Bethanne Kunz (on behalf of the Economic Development Board and Chamber)

Mrs. Kunz will be responsible for recruiting volunteers to schedule classes, workshops and seminars at the learning center. She will also recruit volunteers and train them on how to use the equipment and procedures to follow.

Economic Development Board Members

- Oversee the project
- Develop clear policies and specific procedures for the learning center volunteers
- Monitor usage and compile reports for the assessment requirements
- Educate public and private entities about the availability of the learning center for educational opportunities

3. List the major milestones and deliverables for each milestone;

Milestone: We are awarded. Preparation phase begins

June Publicize the program to public and private entities, area residents and hospitals

Begin publication of the learning center in area newspapers, radio stations and newsletters

Place order for the equipment through Galaxy

Begin recruitment of volunteers to assist at the learning center

Begin coordinating with area colleges in January 2002

Inform appropriate entities of workshop capabilities in Ord. (Nebraska Public Power District, Department

of Economic Development, Nebraska Bankers Association, American Bankers Association, Nebraska State Bar Association, American Bar Association and private organizations)

- July**
- Continue recruitment of volunteers
 - Develop policies and procedures for volunteers
 - Continue educational awareness of the learning center and what types of classes will be offered
 - Continue coordination with area colleges for scheduling of classes
 - Continue publication via newspapers, radio ads and area newsletters
- August**
- Continue to train volunteers on policies and procedures determined by the Economic Development Board
 - Continue news releases and advertisement in the Central Nebraska area
- September**
- Continue coordination with colleges and entities for workshops and classes
- October**
- Complete recruitment of volunteers
 - Begin coordination with area colleges for available classes for the Spring 2002 Semester
 - Review training session held if needed
- November**
- Acquire equipment from Galaxy
 - Begin system set-up at the Greater Loup Valley Activities Building in Ord
 - Install and test equipment
 - Initial training of volunteers and Coordinator on how to operate the equipment and what to do in case of a technical difficulty
 - Publication in Chamber Newsletter

Finalize coordination with area colleges for Spring 2002 classes

Schedule workshops and seminars for January 2002

Begin preparation of midpoint report to NITC

Gather appropriate information from involved entities for the report

Milestone: Project Launch and Midpoint

December Publicize a feature article in area newspapers stating specific classes and workshops that will be offered

Finish midpoint report and send to NITC

Publication in Chamber Newsletter

Register students for spring semester classes

Finalize schedule for workshops and seminars for January

January Spring semester begins

Continue to assist volunteers with questions

Chamber Newsletter Publication

Inform involved entities to begin new assessments and measurements

Schedule workshops and seminars for February

February Review training of volunteers if needed

Recruit additional volunteers, if needed depending on usage

Conduct an early assessment of usage and scheduling

Chamber Newsletter Publication

Schedule workshops and seminars for March

- March** Begin coordination with colleges and other entities about classes for Summer 2002
- Assessment and measurement by hospitals of usage
- Schedule workshops and seminars for April
- Chamber Newsletter Publication
- Conduct an assessment of usage and scheduling
- April** Survey users of the learning center for measurement and assessment of the quality of education provided by the learning center
- Continue coordination with area colleges about summer class offerings
- Schedule workshops and seminars for May
- Chamber Newsletter Publication
- May** Begin collection of information for final report to the NITC
- Finalize course offerings for Summer 2002
- Final survey performed on all businesses, students and entities that used the learning center for the first year
- Chamber Newsletter Publication
- Schedule workshops and seminars for June

Milestone: Project Completion

- June** Send final project report to NITC

4. Training and staff development requirements and procedures;

BryanLGH will provide initial coordinator and staff training. Once the initial training sessions are complete, the volunteers and coordinator will be responsible for training additional volunteers as needed. The Economic Development Board, Chamber of Commerce Board and Valley County Hospital Administrator will

also be trained on use of the equipment, policies and procedures.

5. Maintenance and on-going support requirements, plans and provisions.

Maintenance of the network is Galaxy's responsibility and is covered by the monthly cost. Classroom equipment (cart, camera, etc.) maintenance is covered by warranty at first and then is either covered by the owner or a by a maintenance contract with Galaxy.

Section VII: Technical Support

Describe how the project enhances, changes or replaces present technology systems, or if new systems are being added. The narrative should address the following:

This project is a new system.

1. Describe the hardware, software, and communications requirements for this project. Describe the strength and weaknesses of the proposed solution;

This system is an analog based two way interactive video system that uses a dedicated single mode fiber optic network connecting hospitals that belong to the Heartland Health Alliance. The system is made by Broadband Networks. Inc. and uses their Edcomm software for scheduling and control. The HHA system is connected to a gateway that uses a PictureTel Concord for connecting the system to any dial up system around the world.

2. Rationale for determining the selection and appropriateness of the proposed technology components compared to the needs of users;

In order to deliver the highest level audio and video quality needed for medical education and other telehealth needs fiber optic based connections are the best solution. The Edcomm system delivers the superior quality of fiber optic while keeping monthly connection fees low. The \$500 cost is lower than an unsubsidized T-1 connection.

3. Issues pertaining to reliability, security and scalability (future needs for growth or adaptation);

This system has proved highly reliable and Galaxy has shown superb customer service in addressing maintenance and repair needs.

Security is assured in that this is a closed system and even when using the gateway for reaching outside the network security is high.

This system can be expanded at anytime and will, as technology improves, migrate to an IP video solution.

4. Appropriateness of the key technologies with respect to generally accepted industry standards;

This system meets all appropriate standards.

5. Compatibility with existing institutional and/or statewide infrastructure.

Using the PictureTel gateway this system is compatible with statewide infrastructure. It has worked with the NCVN and weekly connects with the UNMC system.

Section VIII: Risk Assessment

Describe possible barriers and risks related to the project. The narrative should address the following:

1. Describe the risk assessment which has been performed on this project;

This project has been assessed to predict what areas of potential failure exist, and how the failure of that component of the project would affect the success of the learning center project. In addition, what should be done to prevent such failures.

2. List the identified risks, and relative importance of each;

- Risk 1:** Equipment failure or malfunction; High Importance, Medium Probability
- Risk 2:** Funding capacity; High Importance, Medium Probability
- Risk 3:** Scheduling Conflicts and usage; High Importance, Medium Probability
- Risk 4:** Coordination and Recruitment of Volunteers; Medium Importance, Low Probability

Risk 5: Obsolescence of equipment; Low Importance, Low Probability

3. Identify strategies which have been developed to minimize risks;

Risk 1: The project's objectives will not be met if equipment fails or malfunctions. To ensure rapid response to equipment problems, volunteers will be trained on what to do and who to contact in the event of malfunction.

Risk 2: The funding capability for the annual line charges is a definite risk. However, the hospital is willing to pay a portion of the annual fee. In addition, usage fees will be charged as established by the Economic Development Board and Hospital.

Risk 3: There is always the risk of the extreme usage levels. In order to reduce the risk of minimal usage, efforts have been taken to encourage any entity, public or private, to use the learning center for educational opportunities. In the event that there are numerous users of the learning center, scheduling conflicts may occur. Priorities will be established to determine the entities with priority. For example, a student who takes classes at the center once a week should not be displaced because a conference is offered at the same time.

Risk 4: The coordination and recruitment of volunteers is always a risk. However, there are several citizens who have shown a great interest in this project and have indicated they are willing to participate in the training and scheduling process.

Risk 5: The obsolescence of the learning center equipment is a low risk because this technology is relatively new and is being utilized more and more by communities as a mechanism to enhance educational opportunities.

4. Impact if project is not completed as proposed.

The impact if the project is not completed would be the continued lack of educational opportunities for area residents and businesses. This area of rural Nebraska has a definite need for additional opportunities to enhance the quality of the workforce and retain residents. However, we feel this project has strong support to ensure its success.

Section IX: Financial Analysis and Budget (Required)

Provide the following financial information:

	CTF Grant Funding	Cash Match (5)	In-Kind Match (6)	Other Funding Sources (7)	Total
Personnel (1)					
Contractual Services					
• Design					
• Programming and Testing					
• Project management, evaluation, and quality assurance					
• Other (2)					
Capital expenditures (3)					
• Hardware Acquisition	\$12,000				\$12,000
• Software Acquisition					
• Network costs	\$34,000				\$34,000
• Other			\$18,675		\$18,675
Other Costs					
Telecommunications					
Supplies and materials					
Other operating (4)					
Travel					
TOTAL	\$46,000		\$18,675		\$64,675

Financial Narrative Notes:

1. Not applicable to this project.
2. Not applicable to this project.
3. **Itemization of capital expenditures by categories**

Hardware Acquisition includes:

Luxor Mobile Cart 32"w, 24"d, 59.5"h
 Panasonic VHS Recorder/Player
 Audio-Technics Instructor Lavalier Wireless Microphone
 Audio-Technics Student Handheld Wireless Microphone
 Audio-Technics Tapered, slip-in microphone clamp
 Extron 8x8 Video Switch
 Coherent Echo Canceller and rack mount

Atlas/Sondolier Speakers (Pair)
IRP Speaker Amplifier
Middle Atlantic 28" Equipment Rack
Phillips 27" Monitor
Sony Panoramic/Tilt/Zoom with Tracking
Sony Wide Angle Adapter Lens
Tech Electronics VCR Control Module
Tech Electronics VCR Control Cable
BNI Cart Control Package
Install & Training

Total Hardware Cost	\$12,000
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Network costs include:

Network costs include upfront charges, including initial design and engineering of the network. These charges also cover network facilities and electronics, full system setup and testing as well as initial user training.

Total Network Cost	\$34,000
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4. Not applicable to this project.

5. Not applicable to this project.

6. Sources of in-kind matches and how they will be documented.

There sources of in-kind matches will be documented by bills or letters of donation submitted by each individual or entity. They are as follows:

Building use (5 percent of building valued at \$197,500)

\$9,875

Materials and Labor:

Sack Lumber Company - studs for walls, trim, doors	\$1,300
Wadas, Inc. - heating and cooling system	\$1,200
Ord Glass & Paint - glass for windows, paint and supplies	\$800
Gene's Electric - lighting to the room	\$1,500
Ord Family Furniture - Carpet	\$1,000
Dick Beran - labor for laying the carpet	\$500
Miska Drywall - drywall and labor	\$1,200
Kruml Construction - labor to set studs, hang doors and trim	\$1,300

TOTAL in-kind match	\$18,675
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7. Not applicable to this project.